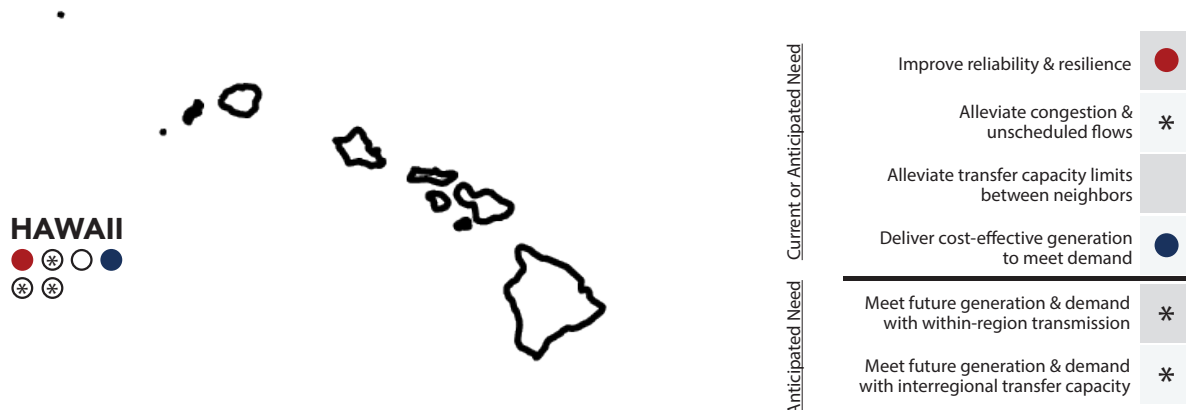


FACT SHEET

# 2023 NATIONAL TRANSMISSION NEEDS STUDY HAWAII

The U.S. Department of Energy's Grid Deployment Office (GDO) released the National Transmission Needs Study ("Needs Study") in October 2023. The Needs Study is the Department's **triennial state of the grid** report. It identifies transmission needs and provides information about current and anticipated future capacity constraints and congestion on the Nation's electric transmission grid. In this fact sheet, we highlight the transmission needs of Hawaii. The Needs Study provides further detail on the benefits of transmission that could be realized throughout the country.



\* Wholesale market price data is limited for non-Regional Transmission Organization/Independent System Operator regions and capacity expansion modeling data is limited for Hawaii. Absence of data does not necessarily indicate that there is no need for new transmission.

## FINDINGS OF TRANSMISSION NEED IN HAWAII

- › **Improve reliability and resilience.** Transmission systems on Hawaii, Lanai, Maui, Molokai, and Oahu islands are approaching capacity limitations and will require additional transmission capacity as the islands continue to integrate renewable resources through ongoing and future procurement necessary to meet state clean energy goals. Hawaii anticipates potential reliability concerns due to high levels of inverter-based renewables integration. In Kauai, system operators note the transmission system is capable of riding through a single contingency in accordance with its system voltage and frequency requirements with current generation and load levels; however, with anticipated load growth, additional transmission infrastructure would allow for a more resilient grid in the face of plausible contingency scenarios.
- › **Deliver cost-effective generation to meet demand.** Transmission network expansion is critical for Hawaii, Lanai, Maui, Molokai, and Oahu islands to integrate sufficient renewable resources required for the state to reach its 100% renewable by 2045 renewable portfolio standard target.

### HELPFUL LINKS

- › Read the full study at: [www.energy.gov/gdo/national-transmission-needs-study](https://www.energy.gov/gdo/national-transmission-needs-study)
- › Contact GDO with additional questions: [transmission@hq.doe.gov](mailto:transmission@hq.doe.gov)